Department of Energy
Idaho Operations Office
850 Energy Drive
Idaho Falls, Idaho 83401-1563

April 29, 2003

Mr. Wayne Pierre, Team Leader
Environmental Cleanup Office
U.S. Environmental Protection Agency
Region X
1200 Sixth Avenue
Seattle, Washington 98101

Mr. Dean Nygard, Site Remediation Manager
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, Idaho 83706

SUBJECT: Documentation of Agreement to Defer Installation of the Operable Unit 3-13, Group 4, Perched Water Phase II Wells – (EM-ER-03-120)

Dear Mr. Pierre and Mr. Nygard:

This letter is to document the agreement that was reached to defer installation of the Operable Unit (OU) 3-13, Group 4, Perched Water phase II wells. During our March 17th meeting in Idaho Falls, we agreed that instead of installing these wells, DOE would work with you to revise the Data Quality Objectives (DQOs) for the perched water. Once we reach concurrence on the DQOs, we will revise the Monitoring System and Installation Plan (MSIP, DOE/ID-10774) and the Long Term Monitoring Plan (LTMP, DOE/ID-10746) to address the changes to the strategies and methods needed to monitor and reevaluate the recharge and drain-out of the perched water zones. The revision will outline the additional scope to include additional instrumentation for the perched water monitoring system, an INTEC water balance engineering study, and a round of geochemistry sampling and analysis.

The additional instrumentation will record water depth, temperature, and conductivity of at least 16 perched water wells in and around the INTEC facility. Data will be used to distinguish between perched water recharge sources and provide temporal and spatial correlation to specific recharge events (e.g. Big Lost River flow, seasonal precipitation/infiltration, discharges from facility operations).

The water balance engineering study will (a) identify existing inputs (or recharge sources) to the vadose zone, (b) quantify the discharges and flow rates from point and non-point sources using existing data, (c) make recommendations for additional methodology for monitoring and metering the recharge sources, and (d) suggest methods to minimize recharge to perched water bodies.

The geochemistry sampling and analysis study will be conducted for 3 to 5 locations. The isotopic ratio data will be used to identify the unique isotopic signatures from various vadose zone recharge sources to determine the relative contribution and to provide input for modeling the interface between recharge sources and the vadose zone.

We expect this revised strategy will provide a better understanding of the vadose zone at INTEC and will help us to accomplish the remedial action objectives and goals identified in the OU 3-13 Record of Decision (ROD, DOE/ID-10660). The OU 3-13 conceptual model developed for the ROD assumed that the perched water bodies at INTEC were interconnected and that the percolation ponds and Big Lost River were the primary sources of water infiltration and comprised approximately 91% of the total

recharge at INTEC. We have since discovered that the northern and southern perched water systems are not connected and the northern perched water bodies have different recharge sources. The conceptual model will be revised to show the water from the former percolation ponds does not migrate to the northern portion of INTEC where the tank farm is located. If it is deemed necessary to install the phase II wells after performing the studies, we will do so. We look forward to working with you to develop a revised approach and for addressing the perched water at INTEC.

If you have questions or need additional information, please contact Rachel Hall at (208) 526-1661.

Sincerely,

Kathleen E Hain

Kathleen E. Hain, Lead
Environmental Restoration Program

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